

CLAIMS

1. In a data processing system (100) including a plurality of subject entities (110) and at least one authority entity (105), an autonomic management method (300) for self-configuring the
5 subject entities, each subject entity belonging to at least one of a plurality of categories, wherein the method includes the steps of:

the at least one authority entity publishing (324) a plurality of rules each one defining a target state for a
10 category, the target state of at least one rule being a prerequisite for the target state of at least one further rule,

each subject entity retrieving (320-322,326) the rules for the corresponding at least one category,

applying (427-439) each retrieved rule to configure the
15 subject entity according to the target state, the application of the retrieved rule failing when at least one corresponding prerequisite is not available on the subject entity, and

repeating (427-448) the application of each failed rule to configure the subject entity according to the target state
20 specified in the failed rule when all the corresponding prerequisites are available.

2. The method (300) according to claim 1, further including the step of:

detecting (445,451) a deadlock condition on the subject
25 entity when the number of the corresponding failed rules does not decrease after each step of repeating the application.

3. The method (300) according to claim 2, further including the steps of:

the subject entity retrieving (320-322,326) further rules for the corresponding at least one category, and

5 resetting (415) the number of the corresponding failed rules in response to the retrieving of the further rules.

4. The method (300) according to claim 3, further including the step of:

aborting (330) the execution of a loop including the steps
10 of applying the retrieved rules (427-439) and repeating the application of the failed rules (427-448) in response to the retrieving of the further rules.

5. The method (300) according to any claim from 1 to 4, further including the steps of:

15 the subject entity verifying (454-457) the compliance to each retrieved rule in response to the successful application of all the retrieved rules, and

detecting (460,466) a loop condition when the subject entity is not compliant to at least one retrieved rule.

20 6. A computer program (203;218,254), directly loadable into a working memory of a data processing system (100) including a plurality of subject entities (110) and at least one authority entity (105), for performing the method (300) of any claim from 1 to 5 when the program is run on the system.

7. In a data processing system (100) including a plurality of subject entities (110) and at least one authority entity (105), a computer program (218,254) directly loadable into a working memory of a computer of a subject entity for performing an
5 autonomic management method (300) for self-configuring the subject entity when the program is run on the computer, each subject entity belonging to at least one of a plurality of categories and the at least one authority entity publishing (324) a plurality of rules each one defining a target state for a
10 category, the target state of at least one rule being a prerequisite for the target state of at least one further rule, wherein the method includes the steps of:

retrieving (320,326) the rules for the corresponding at least one category,

15 applying (427-439) each retrieved rule rule to configure the subject entity according to the target state, the application of the retrieved rule failing when at least one corresponding prerequisite is not available on the subject entity, and

repeating (427-448) the application of each failed rule to
20 configure the subject entity according to the target state specified in the failed rule when all the corresponding prerequisites are available.

8. A program product (175) comprising a computer readable medium on which the program (203;218,254) of claim from 6 or 7 is
25 stored.

9. In a data processing system including a plurality of subject entities (110) and at least one authority entity (105), an autonomic management system (100) for self-configuring the subject entities, each subject entity belonging to at least one
30 of a plurality of categories, wherein the at least one authority

entity includes means (203) for publishing a plurality of rules each one defining a target state for a category, the target state of at least one rule being a prerequisite for the target state of at least one further rule, and wherein each subject entity
5 includes means (254) for retrieving the rules for the corresponding at least one category, means (254) for applying each retrieved rule to configure the subject entity according to the target state, the application of the retrieved rule failing when at least one corresponding prerequisite is not available on
10 the subject entity, and means (254) for repeating the application of each failed rule to configure the subject entity according to the target state specified in the failed rule when all the corresponding prerequisites are available.

10. In a data processing system including a plurality of subject
15 entities and at least one authority entity, a computer (110) of a subject entity suitable to be used in an autonomic management system (100) for self-configuring the subject entity, each subject entity belonging to at least one of a plurality of categories and the at least one authority entity publishing a
20 plurality of rules each one defining a target state for a category, the target state of at least one rule being a prerequisite for the target state of at least one further rule, wherein the computer includes means (254) for retrieving the rules for the corresponding at least one category, means (254)
25 for applying each retrieved rule to configure the subject entity according to the target state, the application of the retrieved rule failing when at least one corresponding prerequisite is not available on the subject entity, and means (254) for repeating the application of each failed rule to configure the subject
30 entity according to the target state specified in the failed rule when all the corresponding prerequisites are available.